AQMP Advisory Group

April 16, 2020

Cleaning The Air That We Breathe...

Agenda

1. Welcome, Introductions, Minutes, and 2016 AQMP Updates
2. Upcoming State Implementation Plan Obligations
3. 2022 AQMP Schedule and Overview
4. Reasonably Available Control Technology Demonstration
5. Baseline Inventory
6. Vehicle Miles Traveled Emissions Offset Demonstration

Agenda Item #1

Welcome, Introductions, Minutes, and 2016 AQMP Updates

2016 Air Quality Management Plan (AQMP)

- Approved by the South Coast AQMD Governing Board in March 2017
- Integrated plan addressing multiple National Ambient Air Quality Standards (NAAQS)

Criteria Pollutant	Standard	South Coast Classification	Coachella Valley Classification
2008 8-hour Ozone	75 ppb	Extreme	Severe
1997 8-hour Ozone	80 ppb	Extreme	Extreme*
1979 1-hour Ozone	120 ppb	Extreme	Attainment
2012 Annual PM2.5	12 µg/m^3	Serious	Unclassifiable/ Attainment
2006 24-hour PM2.5	35 µg/m^3	Serious	Unclassifiable/ Attainment

**Voluntary reclassification from severe to extreme in September 2019*

2016 AQMP – U.S. EPA Actions

Standards		EPA Actions	Reference
South Coast Air Basin	1979 1-hour Ozone (120 ppb)	• Approved most plan elements; • Conditional approval* for the reasonable further progress contingency measure requirement	Effective Oct. 31, 2019; 84 FR 52005
	1997 8-hour Ozone (80 ppb)		
	2008 8-hour Ozone (75 ppb)		
	2006 24-hour PM2.5 (35 µg/m3)	• Approved most plan elements; • Did not propose any action on the attainment contingency component	Effective Mar. 14, 2019; 84 FR 3305
	2012 Annual PM2.5 (12 µg/m3)	• No actions yet; deemed complete by default	-
Coachella Valley	2008 8-hour Ozone (75 ppb)	• Approved most plan elements; • Conditional approval* for the reasonable further progress contingency measure requirement	Proposed rule released in January 2020 85 FR 2949

**Relied on South Coast AQMD's commitment to modify an existing rule or rules, or adopt a new rule(s), to include contingency provisions to provide for additional emissions reductions*

PM2.5 Contingency Measures

- Clean Air Act requires contingency measures to take effect following a determination that the area has failed:
  1. To meet any RFP requirement
  2. To meet any quantitative milestone
  3. To submit a quantitative milestone report
  4. To attain the applicable PM2.5 NAAQS by the applicable attainment date
- Rule 445 (Wood Burning Devices) currently under amendment to address contingency provisions for PM2.5
  - New measures (lower curtailment thresholds) to be triggered following EPA findings of failure

Agenda Item #2

Upcoming State Implementation Plan Obligations

2006 24-hr PM2.5 Standard - Attainment Status in South Coast Air Basin

- South Coast Air Basin is a Serious nonattainment area for the 2006 24-hour standard (35 µg/m³)
  - 2016 AQMP addressed Serious Plan requirements
  - Attainment deadline - December 31, 2019
  - Attainment status determined by three-year averaged design values (2017-2019)
- Based on 2017-2019 monitoring data, South Coast Air Basin would not attain the standard
  - Higher levels of PM2.5 observed in 2017
  - 2018-2019 data is clean and 2-year design value is below the standard

2006 24-hr PM2.5 Standard – Implications of Nonattainment

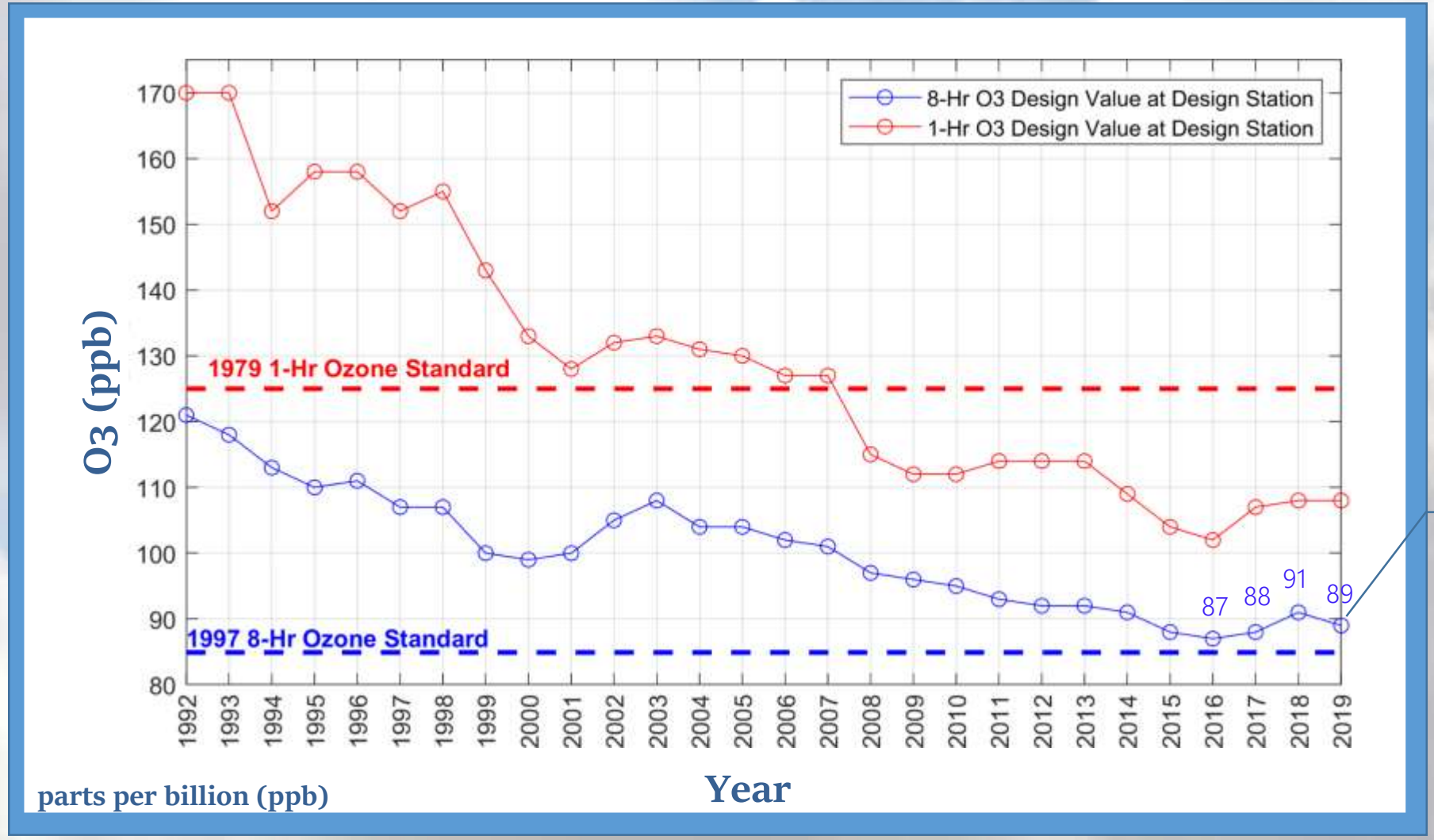
- **Implications of nonattainment**
  - EPA will issue a "Notice of Failure to Attain"
  - Contingency measure triggered (Rule 445 – Wood Burning Devices)
  - SIP revision due to EPA by Dec 31, 2020
    - 5% annual reductions (PM2.5 or PM2.5 precursors)
    - Emission inventory
    - Attainment demonstration
    - Additional feasible measures
    - Reasonable Further Progress (RFP)
    - Contingency measures
- **A draft Plan is scheduled to be released Fall 2020**

1997 8-hour Ozone Standard for Coachella Valley

- Coachella Valley was classified as a Severe nonattainment area, with an attainment date of June 15, 2019
- 2016-2018 monitoring data indicated that the area would not attain the standard by the attainment date

- Clean Air Act allows reclassification to next level of ozone nonattainment
  - Request submitted to U.S. EPA in June 2019 to reclassify the area as Extreme nonattainment
  - U.S. EPA approved bump up to Extreme nonattainment

Ozone Design Value (3-year average) Trend in Coachella Valley



2019 4th highest value is 83 ppb

Implications of Reclassification

New attainment date of June 2024

Major source thresholds changed from 25 to 10 tpy for NOx and VOC

State Implementation Plan (SIP) revision to demonstrate attainment

Coachella Valley Extreme Area Plan

- Coachella Valley is reclassified to Extreme nonattainment, effective July 10, 2019
- SIP revision due to EPA by February 14, 2021
  - Emissions inventory
  - Attainment demonstration
  - Reasonably Available Control Technology (RACT) / Reasonably Available Control Measure (RACM)
  - Reasonable Further Progress (RFP)
  - Contingency measures
- A draft Plan is scheduled to be released Fall 2020

Agenda Item #3

2022 AQMP Schedule and Overview

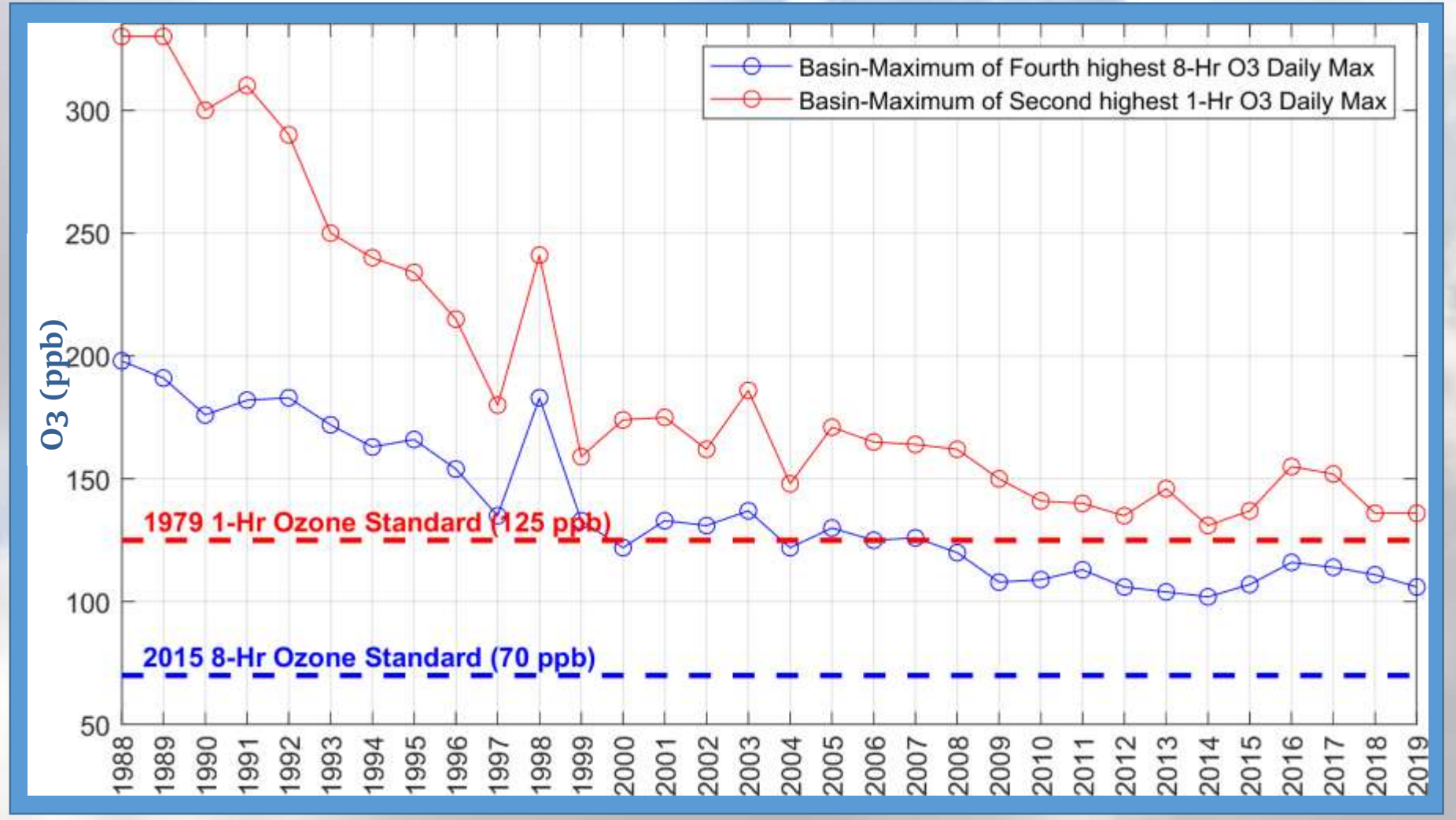
Background – 2015 8-hour Ozone Standard

- **In 2015, the U.S. EPA strengthened the National Ambient Air Quality Standards (NAAQS) for ozone to 70 parts per billion (ppb)**
- **Nonattainment classifications for South Coast Air Basin and Coachella Valley**

Standard	Level	South Coast Classification	Coachella Valley Classification	Attainment Date
2015 8-hour Ozone	70 ppb	Extreme	Severe	August 3, 2038 (South Coast) August 3, 2033 (Coachella Valley)
2008 8-hour Ozone	75 ppb	Extreme	Severe	July 20, 2032 (South Coast) July 20, 2027 (Coachella Valley)
1997 8-hour Ozone	80 ppb	Extreme	Extreme*	June 15, 2024 (both South Coast and Coachella Valley)
1979 1-hour Ozone	120 ppb	Extreme	Attainment	February 6, 2023 (South Coast)

**Voluntary reclassification from severe to extreme in September 2019*

Ozone Trend in South Coast Air Basin



Key SIP Elements and Due Dates for Severe and Extreme Nonattainment Areas

	8/3/2020	8/3/2021	8/3/2022	8/3/2028
Severe and Extreme Areas	Baseline Year Emissions Inventory	Nonattainment New Source Review	Attainment Demonstration	Section 185 Fee Program (Failure to attain)
	Emissions Statement		Reasonably Available Control Measures	
	Reasonably Available Control Technology Demonstration		Reasonable Further Progress	
			Conformity	
			Contingency Measures	
	Vehicle Miles Traveled Offset		Enhanced Inspection and Maintenance Program	
Extreme Area Only		Clean Fuels for Boilers	**2022 AQMP**	

Emissions Statement Certification

- Clean Air Act requires ozone nonattainment areas to have a program that requires emissions statements from stationary sources of NOx and VOC
- South Coast AQMD Rule 301 (Permitting and Associated Fees) fulfills the emissions statement requirement for the 2008 ozone standard
  - Rule 301 requires emission reporting from major stationary sources of NOx and VOC greater than or equal to four tons per year
  - U.S. EPA approved Rule 301 as meeting the emissions statement requirements (84 FR 52005)
- South Coast AQMD certifies that the existing provisions in Rule 301 are adequate in meeting the emissions statement requirement for the 2015 ozone standard

2022 AQMP Schedule

2020 Spring

Initiate emissions inventory and modeling preparation

2020-2021

Control Strategy Development

2021 Fall

Release Draft AQMP / Regional Workshops

2022 Spring

Release Draft Final AQMP

Due to EPA August 3 2022

Initiate Advisory Group Meetings
- AQMP
- STMPR

2020

Control Strategy Symposium

2021 Spring

Release Revised Draft AQMP / Regional Hearings

2021 Winter

South Coast AQMD and CARB Public Hearings

2022 Summer

Agenda Item #4

2022 AQMP – Reasonably Available Control Technology Demonstration

Key SIP Elements and Due Dates for Severe and Extreme Nonattainment Areas

	8/3/2020	8/3/2021	8/3/2022	8/3/2028
Severe and Extreme Areas	Baseline Year Emissions Inventory	Nonattainment New Source Review	Attainment Demonstration	Section 185 Fee Program (Failure to attain)
	Emissions Statement		Reasonably Available Control Measures	
	Reasonably Available Control Technology Demonstration		Reasonable Further Progress	
			Conformity	
			Contingency Measures	
	Vehicle Miles Traveled Offset		Enhanced Inspection and Maintenance Program	
Extreme Area Only		Clean Fuels for Boilers		

What is RACT?

- **Reasonably Available Control Technology (RACT)**
  - ❑ "Lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economical feasibility" *(44 Federal Register 53762, September 17, 1979)*
- **Guidance**
  - ❑ Based on current information at time of development
  - ❑ Considers controls achieved in practice to be feasible (economically and technologically)
  - ❑ Includes EPA's Control Techniques Guidelines at minimum *(CAA §182(b)(2))*

What Emission Sources are Subject to RACT?

EPA Control Technique Guidelines Sources

40+ Control Technique Guidelines (CTG) sources such as:

- Bulk Gasoline Plants
- Leaks from Petroleum Refinery Equipment
- Petroleum Liquid Storage in External Floating Roof Tanks
- Leaks from Natural Gas/Gasoline Processing Plants
- Shipbuilding and Ship Repair Operations (Surface Coating)
- Paper, Film, and Foil Coatings
- Large Appliance Coatings
- Metal Furniture Coatings
- Miscellaneous Metal and Plastic Parts Coatings
- Miscellaneous Industrial Adhesives
- Automobile and Light-Duty Truck Assembly Coatings
- Oil and Natural Gas Industry

Non-CTG Major Stationary Sources

South Coast Air Basin:

- Facilities exceeding 10 tons per year of VOC or NOx emissions

Coachella Valley:

- Facilities exceeding 25 tons per year of VOC or NOx emissions

Regulatory History for RACT SIP Submittal

2006 RACT Demonstration for 1997 Ozone Standard

2014 RACT Demonstration for 2008 Ozone Standard

2016 AQMP RACT/BACT* Demonstration for PM2.5 Standards

**BACT is defined as Best Available Control Technology, and is part of Best Available Control Measure (BACM) demonstration for PM2.5 serious nonattainment areas*

RACT Demonstration – Approach

EPA

Maryland Department of the Environment

Delaware Department of Natural Resources and Environmental Control

Texas Commission on Environmental Quality

EPA Control Technique Guidelines

EPA Alternative Control Techniques

Code of Federal Regulations

California Air Districts

- Antelope Valley AQMD
- Bay Area AQMD
- Mojave Desert AQMD
- Sacramento Metropolitan AQMD
- San Joaquin Valley APCD
- Ventura County APCD

Other States

- Delaware Department of Natural Resources and Environment Control
- Maryland Department of the Environment
- Texas Commission on Environmental Quality

Rules and Regulations Recently Adopted by Other Agencies

RACT is a moving target that changes over time as new technologies and products become feasible and cost effective

- **Evaluated 60+ rules and regulations recently adopted (March 2014 to February 2020) by other ozone impacted agencies**
- **Reflecting the most up-to-date information from current control technologies**

An Example of RACT Evaluation

Rule Number and Title	Current Rule Requirements	Requirements in Other Agencies, States and Federal Guidance that Are More Stringent	RACT Evaluation
South Coast AQMD Rule 1146 Emissions of Oxides of Nitrogen from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters (Amended 12/7/18)	• 75+ MMBtu/hr: 5 ppm • 20-75 MMBtu/hr: 5 to 9 ppm • 5-20 MMBtu/hr: 7 to 9 ppm	San Joaquin Valley APCD Rule 4320 • 20+ MMBtu/hr: 7 ppm • 5-20 MMBtu/hr: 9 ppm	For units between 20 to 75 MMBtu/hr, South Coast AQMD emission limits vary from 5-9 ppm • Lowering emission limits to 7 ppm not technically feasible for non fire-tube boilers • SJV's rule provides an option to comply with mitigation fee, while Rule 1146 does not Based on the above information, it is concluded that South Coast AQMD Rule 1146 meets RACT.

Summary of Findings - CTG Sources

Automobile and Light-Duty Truck Assembly Coatings CTG

- South Coast AQMD Rule 1115 (Motor Vehicle Assembly Line Coating Operations) regulates VOC emissions from this source category, and is not as stringent as the 2008 EPA's CTG for several coatings and products
- New light-duty motor vehicle manufacturing facilities are operating in the Basin that are subject to this CTG
- South Coast AQMD commits to amend Rule 1115 to meet the CTG requirements

Paper, Foil and Film Coating CTG

- South Coast AQMD Rule 1128 (Paper, Fabric and Film Coating Operations) regulates VOC emissions from this source category, and is not as stringent as the 2007 EPA's CTGs
- Facilities with add-on controls for coating operations meet RACT requirements; add-on controls are listed on federally enforceable Title V permits
- Facilities without add-on controls do not exceed the CTG's applicable threshold (25 tons per year per coating line)
  - A negative declaration is included in this submittal

Conclusions: With the exception of Rule 1115, all applicable CTG sources are subject to RACT level of control

Summary of Findings – Non-CTG Major Stationary Sources

- Evaluated applicable NOx and VOC rules
- South Coast AQMD rules and regulations closely matched those of other agencies, and meet or exceed RACT level of control for all applicable source categories

Conclusions

- With the exception of Rule 1115, South Coast AQMD's current rules meet or exceed federal RACT requirements

- South Coast AQMD commits to amend Rule 1115 to meet U.S. EPA's CTG requirements for Automobile and Light-Duty Truck Assembly Coatings

Public Process

April

May

June

1st – Released Draft RACT Demonstration

8th – Public Consultation Meeting

16th – AQMP Advisory Group

21st – Close of Preliminary Comment Period

5th – Release Draft Final RACT Demonstration

15th – Stationary Source Committee

5th – South Coast AQMD Board Consideration

19th – Submittal to CARB

Agenda Items #5 and #6

2022 AQMP – Baseline Inventory and Vehicle Miles Traveled Emissions Offset Demonstration